

REMARKS

This responds to the Office Action mailed on November 19, 2007. Reconsideration is respectfully requested.

Claims 1, 13, 14, 17, 19, 22, 25, 26, and 28 – 30 are amended, claim 18 is canceled, and no claims are added; as a result, claims 1 – 17 and 19 - 30 are now pending in this application.

Allowable Subject Matter

Claims 13 and 18 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 13 has been rewritten in independent form to include the limitations of base claim 1 and intervening claims 2 and 3, and is therefore believed to be in condition for allowance.

Claim 14 has been amended to include the limitations of claim 18 and is therefore believed to be in condition for allowance. Claim 18 has been cancelled. Claims 15 – 17 are believed to be allowable at least because of their dependency on claim 14.

§102 Rejection of the Claims

Claims 1-12, 14-17 and 19-30 were rejected under 35 U.S.C. § 102(b) as being anticipated by Walton et al. (U.S. 2002/0154705).

Claims 1, 19, 22, 25, and 28 has been amended to include recitations similar to those of claim 18, which was stated to be allowable, and it is therefore believed that claims 1, 19, 22, 25, and 28 are allowable. Claims 2 – 13 are believed to be allowable at least because of their dependency on claim 1. Claims 20 – 21 are believed to be allowable at least because of their dependency on claim 19. Claims 23 – 24 are believed to be allowable at least because of their dependency on claim 22. Claims 26 – 27 are believed to be allowable at least because of their dependency on claim 25. Claims 29 – 30 are believed to be allowable at least because of their dependency on claim 28.

Applicant's claims 4 and 17 are further believed to be allowable because they recite a beamformer and the use of a single antenna. In claim 4, a beamformer performs beamforming on

the time-domain waveforms for subsequent RF transmission over the spatial channels with a single antenna. In claim 17, the radio-frequency signals of the spatial channels are received through a single antenna and a beamformer separates the signals of the spatial channels. In Walton, no beamforming is taught, nor is any beamforming suggested to transmit or receive the several spatial channels using a single antenna. Walton only discloses the use of multiple antennas, in which each antenna transmits separate data (see Walton FIGs. 1, 3, 4A – 6 and corresponding text). For beamforming, the antenna outputs must somehow be combined for transmission by a signal antenna. Applicants find no such teachings in Walton. Walton only discloses the use of separate antennas for transmission, and accordingly, there would be no need for beamforming. Therefore, Walton does not inherently include a beamformer as stated by the Examiner on page 4 of the office action. Walton's time-domain waveforms are simply transmitted by each antenna. In Applicant's claim 4, each spatial channel is transmitted by the signal antenna, and each spatial channel may include different data because of the operations of the parser, the subcarrier modulators, and the IFFT circuitry recited in claim 1. In Applicant's claim 17, a beamformer separates the spatial channels received through a single antenna. Accordingly, Walton does not teach, suggest, or motivate Applicant's claims 4 and 17.

RESERVATION OF RIGHTS

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.111

Serial Number: 10/750,587

Filing Date: December 29, 2003

Title: SYSTEMS AND METHODS FOR ADAPTIVE BIT LOADING IN A MULTIPLE ANTENNA ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION SYSTEM

Page 15
Dkt: 884-A56US1

affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((480) 659-3314) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

SCHWEGMAN, LUNDBERG & WOESSNER, P.A.
P.O. Box 2938
Minneapolis, Minnesota 55402
(480) 659-3314

By 
Gregory J. Gorrie
Reg. No. 36,530